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EXAMINER
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3641	

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Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. The terms “approximately” and “about” in the claims is a relative term which renders the claims indefinite. The terms “approximately” and “about” are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not clear how close to the claimed dimensions constitutes “about” or “approximately”.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8, 10-13, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al. (US Patent # 6,293,203) in view of Johansson (US Patent # 6,814,006). Alexander et al. discloses and claims a firearm and an ammunition cartridge for a projectile having a projectile base diameter, a case for partially containing the projectile, the case comprising a body section, a conical form and a neck and having a maximum outer diameter,

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wherein the cartridge has a maximum length of less than 26 mm (or *about* 34 mm). The ratio of the case body outer diameter to the outer diameter of the neck is in the range from *about* 1.1 to *about* 1.4 or *about* 1.27. Wherein the case has a maximum length of 17-25 mm (or *about* 24 mm). The case has a maximum outer diameter of *about* 10.8 mm. Wherein the conical form has a slope angle Θ of about 32 degrees (or from *about* 28 to 32 degrees or *about* 30 degrees). The projectile base diameter is between 4.5-6 mm (or from *about* 5 to 6 mm or *about* 5.7 mm). The case is made from steel. The ration of the case maximum outer diameter to the projectile base diameter is approximately 1.89. Although Alexander et al. does not expressly disclose the ammunition cartridge used with a projectile comprising a sabot, Johansson does. Johansson teaches a sub-calibre projectile for use in an ammunition cartridge. The composed projectile and sabot can be adapted to a firearm such as the caliber taught by Alexander et al. The sabot is made from polyamide or polyolefin (a type of thermoplastic). The purpose of the composed projectile (i.e. projectile and sabot) is to meet higher demands on performance with regard to penetration ability, range of fire and efficacy. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the composed projectile as taught by Johansson with the ammunition cartridge as taught by Alexander et al. The suggestion/motivation for doing so would have been to obtain ammunition that could meet the higher demands as suggested by Johansson.

6. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al. (US Patent # 6,293,203), Johansson (US Patent # 6,814,006) and Phillips (US Patent # 5,623,780). Although neither Alexander et al. nor Johansson expressly disclose the weapon chamber dimensioned to the specific tolerances (see ¶ 5 above), Phillips does. Phillips teaches a

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method of forming a cartridge chamber wherein the chamber is dimensioned with standard manufacturing tolerances typically between 3 and 6 one thousandths of an inch. Phillips, Alexander et al. and Johansson are analogous art because they are from the same field of endeavor: firearms and ammunition. Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the typical manufacturing tolerances as taught by Phillips with the ammunition as taught by Alexander et al. and Johansson. The suggestion/motivation for doing so would have been to obtain a firearm that could be manufactured since it is impossible to make such a firearm without tolerances and typical tolerances would be well known to use.

7. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Speer reloading Manual (hereafter Speer) and Johansson (US Patent # 6,814,006). Speer discloses an ammunition cartridge comprising a projectile having a projectile base diameter, a case partially containing the projectile, the case comprising a body section, a conical forma and a neck, and having a maximum outer diameter, wherein the cartridge has a maximum length of 0.865 inches (or *about* 34 mm) and the neck has an outer diameter of 9.68 mm (*about* 8.51 mm) and an inner diameter of .355 inches (*about* 7.82 mm). Although Speer does not expressly disclose a sabot partially surrounding the projectile, Johansson does. Johansson teaches a sub-calibre projectile for use in an ammunition cartridge. The composed projectile and sabot can be adapted to a cartridge such as the caliber taught by Speer. The purpose of the composed projectile (i.e. projectile and sabot) is to meet higher demands on performance with regard to penetration ability, range of fire and efficacy. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the composed projectile as taught by Johansson

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with the ammunition cartridge as taught Speer. The suggestion/motivation for doing so would have been to obtain ammunition that could meet the higher demands as suggested by Johansson.


Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ramirez et al. (US Patent Application # 2004/0244256), Emary (US Patent Application # 2006/0054045), Brighton et al. (US Patent # 4,955,157), Jamison (US Patent # 6,675,717), and Fry (US Patent # 6,186,071).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle (Shelley) Clement whose telephone number is 571.272.6884. The examiner can normally be reached on Monday thru Thursday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571.272.6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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